



## **CONCERNS REGARDING THE AVIAN/BIRD FLU IN HAWAII**

Hawaii is a travel cornerstone for the United States and the world. With thousands of visitors and travelers coming through Hawaii everyday, it is natural that there may be some local concerns about the possible spread of avian flu to the Hawaiian Islands.

A brief background on the avian influenza A (HPAI H5N1) virus and some frequently-asked questions and answers specifically targeted to Hawaii's concerns regarding this virus, are listed below.

### **Q: What is avian influenza (bird flu)?**

**A:** Bird flu is an infection caused by avian (bird) influenza (flu) viruses. These flu viruses occur naturally among birds. Wild birds worldwide carry the viruses in their intestines, and usually do not get sick from them. However, avian flu can infect domesticated birds, including chickens, ducks and turkeys, which can be fatal.

In domestic poultry, there are two main forms of the avian influenza virus. The less severe of the two (LPAI H5N1) commonly causes only mild symptoms (ruffled feathers, a drop in egg production) and may easily go undetected. The more dramatic form (HPAI H5N1) spreads very rapidly through poultry flocks, causes disease affecting multiple internal organs, and has a mortality that can approach 100%, often within 48 hours. This document will be dealing with the more dangerous form of avian flu.

### **Q: What is an avian influenza A (H5N1) virus?**

**A:** Influenza A (H5N1) virus – also called “H5N1 virus” – is an Influenza A virus subtype that occurs mainly in birds. Like all bird flu viruses, it circulates among birds worldwide and is very contagious among birds. The distinguishing feature of this H5N1 virus from other bird flu viruses is its tendency to cause severe and even fatal disease among several species of birds. It was identified in Hong Kong in 1997.

Influenza viruses are grouped into three types: A, B and C. Influenza A and B viruses are of concern for human health. Only Influenza A viruses can cause pandemics.

### **Q: How does bird flu spread?**

**A:** Infected birds shed flu virus in their saliva, nasal secretions, and feces. Susceptible birds become infected when they have contact with contaminated excretions or surfaces that are contaminated with excretions.

### **Q: Do bird flu viruses infect humans?**

**A:** Yes, on rare occasions. Human infections and deaths due to the avian H5N1 virus have occurred, although the virus has currently not developed the ability to pass easily from person to person and cause outbreaks in humans.

Almost all human cases have been traced to close contact with infected poultry. The process of raising chickens and preparing chickens in Asia – home slaughter, plucking feathers, preparing it for the table – introduces a number of ways in which a person can become infected. Extended, prolonged contact with poultry, their secretions and excrement is the most likely route

of infection.

Eating raw, contaminated poultry blood has been suggested as one of the ways people have become infected. Thoroughly cooking poultry will destroy the virus. According to the Department of Health Sanitation Branch, the internal temperature of whole poultry should be 180°F. Poultry breasts should be cooked to 170°F. Ground turkey, and all other poultry, should be cooked to at least 165°F. Eggs should be cooked until the yolks and whites are no longer runny. For more information, the Hawaii State DOH Sanitation Branch can be reached at 808-586-8000.

**Q: Who is at risk to contract bird flu?**

**A:** The risk from bird flu is generally low to most people because the viruses occur mainly among birds and do not usually infect humans. If an outbreak of bird flu among poultry (domesticated chicken, ducks, turkeys, etc.) were to occur, there is a higher risk to people who have direct contact with infected birds or surfaces that have been contaminated with excretions from infected birds, such as poultry farm workers. The current outbreak of avian influenza A (H5N1) among poultry in Asia and Europe (see below) is an example of a bird flu outbreak that has caused human infections and deaths. In such situations, people should avoid contact with infected birds or contaminated surfaces, and should be careful when handling and cooking poultry. For more information about avian influenza and food safety issues, please visit the World Health Organization website at: <http://www.who.int/foodsafety/micro/avian/en/>.

The spread of bird flu viruses from one ill person to another has been reported very rarely among those with prolonged contact with an ill person, but transmission appears limited, and has not been observed to continue beyond one person.

**Q: What about the H5N1 bird flu that has been reported in Asia and Europe?**

**A:** Outbreaks of influenza H5N1 occurred among poultry in eight countries in Asia (Cambodia, China, Indonesia, Japan, Laos, South Korea, Thailand, and Vietnam) during late 2003 and early 2004. At that time, more than 100 million birds in the affected countries either died from the disease or were killed in efforts to control the outbreak. By March 2004, the outbreak was reported to be under control. Beginning in late June 2004 new outbreaks of influenza H5N1 among poultry were reported by several countries in Asia (Cambodia, China [ Tibet ], Indonesia, Kazakhstan, Malaysia, Mongolia, Russia [ Siberia ], Thailand, and Vietnam). It is believed that these outbreaks are ongoing. Most recently, influenza H5N1 has been reported among poultry in Turkey and Romania. Human infections of influenza A (H5N1) have been reported in Cambodia, China, Indonesia, Thailand, Turkey and Vietnam.

**Q: What are the symptoms of bird flu in humans?**

**A:** The reported symptoms of bird flu in humans have ranged from typical influenza-like symptoms (e.g., fever, cough, sore throat, and muscle aches) to eye infections (conjunctivitis), pneumonia, acute respiratory distress, viral pneumonia, and other severe and life-threatening complications.

For more information, visit the Centers for Disease Control and Prevention (CDC) avian flu website at <http://www.cdc.gov/flu/avian/index.htm>.

**Q: What is the risk to humans from the H5N1 virus in Hawaii?**

**A:** At this time, the more dangerous strain of H5N1 virus has not been identified outside of the affected areas in Asia and Turkey. Risk is highest for those who travel to the affected areas and experience significant exposure to infected poultry and their secretions (e.g., through close handling of poultry or sleeping and/or living with poultry in the same space).

**Q: With Hawaii's large feral chicken and wild bird population is there a higher risk of humans being exposed to H5N1?**

**A:** No. According to Hawaii State Department of Health Deputy Director for Health Resources, Linda Rosen, M.D., "the type of avian influenza causing problems in Asia (HPAI H5N1) is not present in Hawaii or North America. The risk of wild birds in Hawaii actually contracting and carrying this Asian strain is very small. There has never been a documented case of a person becoming infected by contact with a wild bird. Most or all of the human cases in Asia occurred because of very close contact with infected poultry. Recent human cases of H5N1 infection that have occurred in Cambodia, Thailand, Vietnam, and Turkey have coincided with large H5N1 outbreaks in poultry."

**Q: With the large number of cocks or chickens raised in Hawaii for cock-fighting is there a higher risk of the exposure and spread of H5N1?**

**A:** In Hawaii the risk is very small. There has never been a documented case of the more dangerous strain of H5N1 in feral chickens, wild fowl, or any other type of bird in Hawaii. The documented cases in the bird population of Asia have primarily been from either a bird or human having constant direct exposure to an infected bird or birds.

However, in many parts of Southeast Asia cockfighting is suspected by the World Health Organization (WHO) of spreading the bird flu virus from poultry to humans through close and constant human to bird contact with blood, feces and droplets of fluid. It is one of several cultural practices, including the eating of raw duck blood and the raising of chickens in the home, that are threatening to cause a global pandemic.

The risk of transmitting avian flu or bringing it to Hawaii comes through the smuggling of birds from affected countries. Birds should be obtained via legal means to limit the spread of any infectious disease. For more information on importing livestock to Hawaii, visit the Department of Agriculture website at [http://www.hawaiiag.org/hdoa/ai\\_ldc\\_import.htm](http://www.hawaiiag.org/hdoa/ai_ldc_import.htm).

**Q: Since Hawaii heavily depends on consumer goods brought in from other states and countries, is there a higher risk of eating infected imported poultry?**

**A:** There is no evidence that properly cooked poultry or eggs are a source of infection for avian influenza viruses. For more information about avian influenza and food safety issues, visit the [World Health Organization website](http://www.who.int).

The U.S. government carefully controls domestic and imported food products, and in 2004 issued a ban on importation of poultry from countries affected by avian influenza viruses, including the HPAI H5N1 strain. This ban still is in place. For more information, see Embargo of Birds, <http://www.cdc.gov/flu/avian/outbreaks/embargo.htm>.

**Q: Due to Hawaii's unique geographic location in the Central Pacific is it possible for infected birds to migrate to the state?**

**A:** There are no documented cases of Influenza H5N1 in wild and/or migratory birds in Hawaii. Also, Hawaii is not located in the path of any of the major flyways for migrating birds. Most or all of the very few birds that might migrate here would originate from Alaska. Therefore, since there is no HPAI H5N1 activity occurring in that region, the risk of infected wild birds arriving in Hawaii is extremely unlikely. The U.S. Department of Agriculture and the Department of the Interior are working together to address the possibility of this strain of avian flu entering the mainland United States and territories that are located in major flyway zones. For more information about the U.S. surveillance of birds, refer to: [http://www.nwhc.usgs.gov/pub\\_metadata/field\\_manual/chapter\\_22.pdf](http://www.nwhc.usgs.gov/pub_metadata/field_manual/chapter_22.pdf).

**Q: Due to Hawaii's unique geographic location in the Central Pacific is it possible for an infected traveler to carry H5N1 into the state?**

**A:** There is always the possibility of a traveler carrying a highly volatile virus, whether it is H5N1, measles, smallpox, etc. To attempt to monitor for this, the Hawaii State Department of Health has developed and implemented one of the first HPAI H5N1 Surveillance Programs at the Honolulu International Airport. This program was developed to identify and test potentially infectious persons who travel into our state regardless of the type of virus they may be carrying.

**Q: Many people in Hawaii have family and friends in Southeast Asia and frequently travel to these countries. Is there anything that people can do to protect themselves from being exposed to the avian/bird flu when traveling?**

**A:** There are no travel restrictions at this time. Persons visiting areas with reports of outbreaks of the more dangerous strain of H5N1 among poultry or human cases can reduce their risk of infection by observing the following measures:

**Before any international travel to an area affected by H5N1 avian influenza**

Visit CDC's Travelers' Health website at [www.cdc.gov/travel](http://www.cdc.gov/travel) to educate yourself and others who may be traveling with you about any disease risks and CDC health recommendations for international travel in areas you plan to visit.

**During travel to an affected area**

Avoid all direct contact with poultry, including touching well-appearing, sick, or dead chickens and ducks. Avoid places such as poultry farms and bird markets where live poultry are raised or kept, and avoid handling surfaces contaminated with poultry feces or secretions.

As with other infectious illnesses, one of the most important preventive practices is careful and frequent hand washing. Cleaning your hands often with soap and water removes potentially infectious material from your skin and helps prevent disease transmission. Waterless alcohol-based hand gels may be used when soap is not available and hands are not visibly soiled.

Influenza viruses are destroyed by heat; therefore, as a precaution, all foods from poultry, including eggs and poultry blood, should be thoroughly cooked.

If you become sick with symptoms such as a fever accompanied by a cough, sore throat, or difficulty breathing or if you develop any illness that requires prompt medical attention, a U.S. consular officer can assist you in locating medical services and informing your family or friends.

**After your return**

Monitor your health for 10 days. If you become ill with a fever plus a cough, sore throat, or trouble breathing during this 10-day period, consult a health-care provider. *Before you visit a health-care setting, tell the provider the following: (1) your symptoms, (2) where you traveled, and (3) if you have had direct contact with poultry or close contact with a severely ill person. This way, he or she can be aware that you have traveled to an area reporting avian influenza.*

**Q: What is a vaccine?**

**A:** A vaccine is a medication that stimulates the production of antibodies to protect the body from a specific disease. Vaccines are administered through needle injections, by mouth and by aerosol. There is no known vaccine for the avian influenza A (H5N1).

**Q: What are the drugs Tamiflu and Relenza?**

**A:** Tamiflu and Relenza are not vaccines. The drugs are antiviral medications. Tamiflu has been shown to help fight off viral infections and even suppress the effects of the often deadly

avian influenza A (H5N1). Governments are buying and stockpiling doses of Tamiflu to use in case of an avian flu pandemic. The Hawaii State Department of Health plans to also purchase a supply of antiviral medications and has an emergency appropriation request at the 2006 Legislature to fund this initiative.

For more information, visit: [www.cdc.gov/travel/](http://www.cdc.gov/travel/) or [http://www.cdc.gov/travel/other/avian\\_influenza\\_se\\_asia\\_2005.htm](http://www.cdc.gov/travel/other/avian_influenza_se_asia_2005.htm).

Airline flight crews and airport personnel who may be meeting passengers arriving from affected countries may consult [http://www.cdc.gov/travel/other/avian\\_flu\\_ig\\_airlines\\_021804.htm](http://www.cdc.gov/travel/other/avian_flu_ig_airlines_021804.htm) for recommendations specific to their roles.